Data I/O Corporation

Washington Manufacturing Services

Value Creation For Technology Companies Project Helps Data I/O Improve Efficiencies

Client Profile:
Data I/O Corporation is the leading provider of programming and automated device handling, programming, and marking systems for programmable integrated circuits. The company has attained its position by implementing the latest in manufacturing technologies and techniques. Located in Redmond, Washington, the company employs less than 250 people.

Situation:
Data I/O originally began implementing lean manufacturing techniques in the last quarter of 2000, which significantly reduced lead-times on the main product line. Based on the success of its initial forays into lean manufacturing, Data I/O decided to implement lean techniques throughout the company. However, with the industry experiencing a dramatic downturn and sales declining, the company needed additional resources to continue its journey. Washington Manufacturing Services (WMS), a NIST MEP network affiliate, and the Puget Sound Center (PSC) combined to deliver the resources necessary to make it happen.

Solution:
WMS and PSC determined that by involving other companies, including members of Data I/O's supply chain, along with Data I/O in a broad lean initiative, training dollars from PSC could be accessed and the remaining cost could be shared among several companies. Beyond financial benefits, this strategy gave all participating companies in this joint project the chance to share information and knowledge.
A delivery model developed by Michael Boyer of Vision to Reality (V2R) was selected and tailored to meet the needs of the individual participating companies and stakeholders. The model included nine days of classroom training combined with six days of on-site hands-on implementation at the participating companies. Three of the companies each hosted one of the three-day education sessions, which allowed participants to witness the processes at other companies. It also allowed students to apply their newfound knowledge of lean manufacturing principles to assess and critique processes at the hosting companies and even design and offer improvement plans. Each session built on the knowledge gained in the previous session. In addition to the education sessions, each company was tasked with improving a specific process at its respective facility.

For its project, Data I/O selected five areas spread throughout the company, from the manufacturing floor to order fulfillment to hardware engineering, on which to focus its lean efforts. Data I/O created a manufacturing cell to improve manufacturing efficiency and instituted point-of-use storage of raw materials in the adapter build-to-order process. The company also streamlined the hardware engineering process for better on-time delivery.

Results:
Reduced delivery times by 50 to 60 percent.
Reduced work-in-process inventory by 50 to 70 percent.
Reduced floor space required for work.
Created faster design cycles using lean engineering techniques.
Increased order processing speed.

Testimonial:
“The implementation of the lean processes has dramatically improved the manufacturing operations at Data I/O. The response of our partners, and the support of Washington Manufacturing Services and the Puget Sound Center in accomplishing this project, allowed us to reduce the cycle time for custom systems from four to six weeks to two weeks, and, on desktop products, from three days to one day.”

John Vicklund, Senior Vice President - Human Resources